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COMMONWEALTH OF VIRGINIA JOHN N. DALTON, GOVERNOR

Commission of Game and Inland Fisheries

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COVER: Bluebird Photo by Karl Maslowski, Cincinnati, Ohio

Editorial

FLYWAY WATERFOWL THREATENED

The entire Atlantic flyway waterfowl population was threatened in late March with an epidemic of Avian Cholera. It began in the Chesapeake Bay and spread rapidly through populations of sea ducks. Old squaws and scoters by the thousands succumbed along with some scaup.

There is speculation that it began in ducks weakened by oil from a spill near Reedville. Such birds could have been weakened to a point that they became more susceptible to the disease. Birds salvaged from this spill were checked, however, and no evidence of the disease was found.

Regardless of how it began, it was fortunate that it occurred so late in the season that most ducks and geese were well upstream from the bay and headed north. It will be some time before we know for sure that the disease will not spread to the breeding grounds, creating a full fledged disaster.

Avian Cholera is a bacterial disease that affects the digestive tract. It is fatal to most wild and domestic fowl. It is spread by contaminated fecal matter and can

be carried by gulls and other birds that feed on carrion. Biologists also fear that there are "typhoid Mary" type carriers among the waterfowl population that spread the disease without suffering its effects.

Sanitation was the only course that offered any hope of containing the outbreak. The birds were too scattered (from Sandbridge to the Bay Bridge at Annapolis) to catch or eradicate such individuals. A dedicated group of over 70 men, mostly game wardens, trudged up and down marshy beaches for weeks picking up the dead and often decomposed birds and sealed them in plastic bags. These were then incinerated and all equipment was sterilized. In Virginia over 20,000 dead waterfowl were ultimately recovered and destroyed.

Did it save our east coast waterfowl from disaster? We may never know, but those tired and sore men like to think it did. It is one more example of how positive human intervention can help protect our remaining wildlife populations. It makes one wonder what great calamities befell these wild creatures in days gone by when the ducks and geese blackened the skies. - HLG

Letters

YOUNG TRACKERS

My friend and I live in Pohick Forest. One day, we went back in the woods and suddenly discovered a whole new world. We have decided to follow deer tracks so I would greatly appreciate some information on tracking deer. Is putting salt lick on trees to attract deer against the law? I have heard it is.

Patti Allard

Patti Allard Josie Poe Lorton

It is legal to use salt lick for the purpose of attracting deer so that you can observe them. We are sending our reprint on animal tracks along with the booklet "25 Ways to Aid Wildlife." Good luck on your adventures! - Ed. Asst.

PRAISE FOR TAYLOR

I look forward to getting my Virginia Wildlife every month. I particularly enjoy Bird of the Month with the painting by John Taylor. Keep up the good work!

> R. Coleman Richmond

A LETTER FROM

Virginia Wildlife

Dear Subscribers:

As part of our losing battle with inflation, on July 1 we will increase our bulk price for 10 or more subscriptions to \$2.50 each from its present rate of \$2.00 each.

In case you are interested, it now costs \$3.76 to print and deliver each subscription at current price levels. We hope to reduce this some by adding more subscribers. Could you help out by telling your friends about Virginia Wildlife?

Harry L. Gillam Editor

* * *

OUR MISTAKE!

Two errors were made in the Photo Contest winners portrayed in the April issue. The butterfly, incorrectly credited to John Irby of Ashland, was taken by Mary Spratley of Mechanicsville. The squirrel, also credited to Mr. Irby, was taken by Helen G. Inge of Blackstone. We regret the errors.

WHAT IS IT?

Page 9 of the March issue shows a picture of autumn olive. It really looks like multiflora rose. Also, how about featuring some Southwest Virginia wardens in Personalities?

Harold Jerrell Rose Hill

Thanks for the observation. However, we are sure the plant in question is not multiflora rose. We will try to include some southwest Virginia Wardens soon. - Editor



BY BILL ANDERSON

Since daybreak, more than two hours behind me, I had cautiously maneuvered my way along a fire trail on the side of an oak-studded ridge. I was spending more time sitting in semi-concealment than moving, hoping to hear or see the monarch of the forest, the bearded turkey gobbler.

So far I had drawn a blank. This was my third morning of hunting during the last week of Virginia's spring season. The first morning of my hunt it had rained, not hard, but a slow, steady, cold spring rain that had dampened the forest and chilled me to the bone. It has also apparently dampened the turkey's ardor. Not one turkey did I hear all morning, although other wildlife, including lots of songbirds and grouse, was active.

On the second morning I tried the next ridge to the south. Conditions were better except for a breeze that sometimes rose to a hard wind and limited my hearing ability. Just after first light I heard a big tom rattle the timber with his awesome gobble, which unmistakeably said, "I am ruler of this mountain." For more than half an hour I tried to get an answer, but he didn't talk back or come to the seductive calls of my box caller. I stuck it out a while longer, then moved on in search of a more gullible bird.

LAST HOUR TURKEY

Less than 20 minutes had passed when I detected the faint sounds of another gobbler. But this one was far across a valley, and his challenging call came to me on the breeze. At first I thought it was the barking of a small dog, but as I listened I could distinctly make out the ringing gobble as the wind rose, then subsided. I tried my call, well knowing that he would probably never hear me, even with the superlative sense of hearing a turkey has. The valley was too deep and rough for me to try and cross.

Although this particular spot in Giles County is not noted for having an extremely high turkey population, it does have large birds. I have seen tracks and birds in this area that would make the heart of a turkey hunter leap with joy. Giles, as a whole, does have a great many turkeys. It will usually rank among the top five counties in Virginia when the tags are counted.

Giles County is probably representative of Virginia's turkey population restoration. Like so many states, Virginia's flocks, especially in the west, had dissolved away almost to extinction. Unregulated hunting, gigantic logging operations, cutting and burning of extensive hardwood forests for farming and building communities were all too much for the wild turkey. He simply couldn't stand the pressure.

Virginia game officials were certainly among those pioneers who first tried to reestablish this most noble bird to our woodlands. It was a story of try, failure, and try again. It was a lengthy, heartbreaking struggle that lasted for several decades. Then, like a fairy story, it ended in glorious success.

Restocking of turkeys in the Old Dominion was begun as early as 1929, by releasing "game farm" birds. Later pen-raised birds of genuine wild stock were introduced into the program. Over the years turkeys were bred, raised and released by several different methods. Then, in the mid-1950's a successful method of live-trapping was developed that escalated the turkey program beyond most hunters' wildest dreams.

An area that was relatively free of obstructions was found or created for live trapping. This location was baited, with feeder trails leading in different directions to more easily attract the birds. For a blind the Commission employees constructed a small crude box of weathered lumber a short distance from the trapping spot. From their blind they blasted off small blackpowder cannons, which in turn carried a net over the unsuspecting turkeys as they fed.

All those years of persistent study and endless work by a few dedicated men had given me the privilege of being here on the Jefferson National Forest, seeking what is regarded by many as the trophy of all game animals. It was a privilege easily appreciated. However, it now appeared that my third and last morning would find my scoped rifle again unfired. It was 9:30, and I decided to start working my way back toward camp. I should easily be out of the woods by 10:45.

A few minutes later, I came to a small clearing. Near the edge of the opening was a spot that looked about right for calling. I could not see a turkey approaching from any direction, yet there were enough low-hanging pine branches to break up my outline. But just as I reached for my call, from down the mountainside below me-- and not too far away--came the unforgettable sound of a turkey gobbler.

It took only a few seconds for me to realize there were two gobblers. They were within 100 feet or so of each other, and were less than 300 yards from me. One tom would gobble, then the other would shout back his threat immediately. Apparently, they were traveling slowly in the general direction from which I had just come.

For the next several minutes, I made like a hen turkey, begging and pleading for the toms to come my way. They ignored me. It was painfully apparent they were getting further away. Jamming my call into my

"Those turkeys were no longer traveling. They had stopped and created the perfect setup for me."

jacket pocket, I headed back along the fire trail. The birds were paralleling the old road. I knew I could never call them because there were more likely to be hens with them but I figured if they moved slow enough I just might overtake them and ambush a turkey.

Half a mile ahead, the woods were more open and there was a wildlife clearing to boot. Beyond that was a virtual jungle of mountain laurel and pines. That spot, that one place, would be my last chance-my only chance. I quickened my pace.

As I approached my planned ambush spot, I realized something had changed, and my heart leaped. Those turkeys were no longer traveling. They had stopped and may have just created the perfect setup for me. I slipped to the clearing's edge as slowly and silently as possible. Then one of the turkeys almost shook the earth beneath me. He was 20 yards away, but was completely hidden from view by a peninsula of laurel that protruded into the opening. I slid the green bandana I wear around my neck for camouflage up over my face to meet my eyes. Then I raised my .22 magnum rifle and tried hard to penetrate the laurel with the 4.5x scope. I was so unbearably close, yet so far away. In all this time, I had yet to see either of the turkeys I was pursuing.

Suddenly there was a rush of wings as my gobbler flew. For a moment I thought I had spooked him, but a moment later I heard the crashing of brush and leaves as he landed across a hollow, 60 yards away. As soon as the turkey hit the ground a fight ensued. There was violent thrashing of brush and loud wingbeats. Then more rushing of wings from flying birds. Total silence followed.

Slowly and cautiously I slipped forward. I didn't know if there were any turkeys still on the other side of that hollow or not, but I had to get in a position so I could see. A wild turkey is the biggest animal in the forest. I have shot almost all kinds of small game and have killed several deer. I have seen bears, and they are large and fearsome, but a wild tom turkey at 25 yards is gigantic.

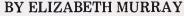
Before I realized it, a turkey gobbler came out of the brush in front of me, running flat out, his long beard swinging obviously. My rifle leaped to my shoulder and as the scope filled with turkey feathers, I fired.

Another gobbler, larger than the first, flew out of the brush like a rocket, and a hen ran unhurried with a subtle "pert."

For a few minutes, I admired the beautiful adult gobbler. I lifted the 10-inch beard and stretched it to its full length. With trembling hands, I tied my turkey tag to the tom's leg and emptied my rifle. It was time to go home.

POISONOUS **PLANTS**

Many plants native to Virginia can be harmful to humans...a guide to identifying and coping with them on your outdoor adventures.



Illustrations by Lucille Walton

t is a little sobering for those who like foraging for wild foods while exploring the woods, to turn their attention to the harmful nature of some of the things which are growing around us. Nevertheless, it is important to take a balanced attitude toward poisonous plants. It is wise to become acquainted with at least the commoner harmful plants of one's area, find out how dangerous they can be, and know a few reasonable precautions that can be taken.

There is a large class of plants which cause irritating skin reactions that may be highly unpleasant, but not fatal. The effects differ widely from person to person. The best-known and most widespread is, of course, poison ivy, Rhus radicans. Together with poison sumac, R. Vernix, and poison oak, R. Toxicodendron, poison ivy belongs in the Anacardiaceae or cashew family. It is strong soap. hard to avoid all three of these plants if one does anything outside at all, titis, in particular Laportea, the

one follows every suspected contact with a thorough washing using

mountain laurel

Nettles are a main cause of dermabut the ill effects can be minimized if wood nettle; Cnidoscolus, the spurge



nettle; and *Urtica*, the stinging nettle. There are other plants reported to produce skin reactions: trumpet-vine, Campsis radicans, some species of Euphorbia, and a host of others, but their effects vary so widely among different people that it is difficult to present a definitive list.

Plants considered as internal poisons are those which cause a chemical or physiological upset, even leading to death, when eaten.

In the lily family there are some beautiful plants with deserved bad reputations. Convallaria majalis, the sweet-smelling lily-of-the-valley, contains cardiac glycosides which cause irregular heartbeat and



stomach upset. All parts of the plant are considered toxic. Star of Bethlehem, Ornithogallum umbellatum, has poisonous alkaloids in the bulbs and some in the above-ground parts. The roots of Jack-in-the-pulpit, Arisaema triphyllum, in the Arum family, can produce severe burning in the throat, caused by crystals of calcium oxalate which become embedded in the mucous membrane. Symplocarpus foetidus, the early blooming skunk cabbage, also possesses this unpleasant compound.

Among the *dicotyledons*, some of the most attractive and unlikely plants are in fact poisonous. In the buttercup family monkshood, potato family or Salanaceae. In this

symptoms which can be fatal.

harm.

ing-bush seeds and buckeyes can rapid and severe symptoms. cause gastric problems, as can the lish ivy.

made when bees visit laurel. The couraged. related species, K. angustifolia and K. polifolia, are known as lambkill, sheep laurel or wicky, and all three plants are hazardous for stock which may be browsing in areas where they grow. Rhododendrons and azaleas contain the same toxic substance and, although cases of poisoning are rare, these plants should all be treated with circumspection.

Elderberries (Sambucus sp.) are partly edible and partly poisonous. The roots, stems and leaves, and (to a lesser extent) young flowers and unripe berries contain a poisonous alkaloid and cyanogenic glycoside which can cause severe gastric disorders. The ripe berries, however, and sometimes the flowers, are used for pies, wine, jelly and pancakes.

The fine tightrope which we seem to be walking between nourishing and poisoning continues through the

Aconitumm, contains an alkaloid group belong some of the meaner causing severe gastro-intestinal poisonous plants, and some of the basic staples of our everyday diet. The spring-blooming May apple, Jimson weed, *Latura Stramonium*, is Podophyllum peltatum has a poison- a very common weed, growing ous resinoid in the plant and unripe throughout the state in fields, roadfruit, although when the fruit is com- sides and waste places. It is a tall pletely ripe it can be eaten without annual with a widely branched greenish-purple stem that smells It is probably safest to teach chil- unpleasant. The leaves are simple, dren to stay away from all wild food ovate with irregular wide-spaced that is not served to them, and yet it teeth around the edge. The white or is hard to deprive them of the great bluish flowers are funnel-shaped, joys of wild berry picking. If they are and the fruit is a dry ovoid capsule sternly limited to the types which covered with many sharp prickles. are commonly eaten: strawberry, The alkaloids contained throughout blackberry, dewberry, raspberry, the plant, especially in the seeds and blueberries, persimmons, apples and leaves, produce thirst, pupil dilation, grapes, they should be able to enjoy hallucinations, coma and death. wild gathering. Holly berries are Children have been poisoned by slightly poisonous, and mistletoe sucking nectar from the flowers. berries are quite dangerous. Burn- Only a small amount is sufficient for

The poison control centers of this berries of Virginia creeper and Eng- country deal with thousands of poisonings every year. It has been esti-Another family of plants which mated recently that 3.5% of these has a bad reputation is the Ericaceae. were due to plants, and some of Mountain laurel, Kalmia latifolia, these cases resulted in fatalities. Any contains a poisonous resinoid in the effort to reduce the adult ignorance leaves, twigs, flowers and pollen and childish curiosity which largely grains. Poison honey is occasionally causes these accidents is to be en-



CARVIN'S This area provides more than just drinking water for Roanoke's citizens. It's a superb recreational area, as well.

BY CHARLES D. BAYS AND JIM WIGINGTON

Roanoke's primary water supply.

the valley meandered along inno- iously stingy with her fish. cently until it reached the southern end of the meadow. Here the placid the angler's productivity, a decision creek plunged recklessly over a wall was recently made to stock the cove prove itself a consistent yielder of of sheer rock.

There was little way for William to have envisioned the potential of a dam at the head of Carvin's Falls, and in all probability, he wouldn't have been overly enthused by the idea anyway. But the vertical cliffs proved to be an ideal site for the construction, and by the spring of 1928, Carvin's Valley had been transformed into Carvin's Cove, a 630-acre reservoir with the holding capacity of 6.47 billion gallons of water. It has since been Roanoke's main supply.

But the cove is much more than a reservoir of public water. The strikingly beautiful lake, with its unscarred shoreline of majestic pine and hardwood, has also provided countless hours of outdoor recreation. Picnicking, birdwatching, boating and fishing are among a few of the recreational advantages enjoyed by its frequent and appreciative guests.

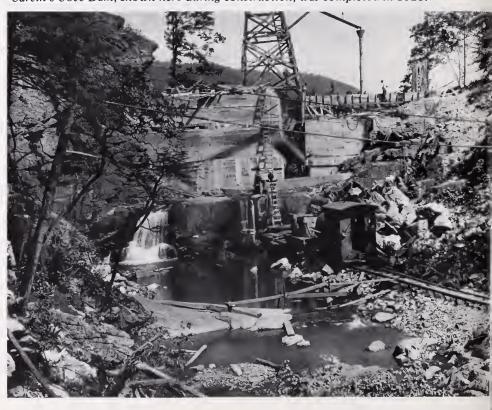
William Carvin, the 1740's adventurer and Indian fighter who these out of doors activities in an uncarved an estate from the wilderness, spoiled setting, one would be hard had no way of knowing the pictur- pressed to select a better site, but to esque valley in which he settled say angler success for the most part would, some 180 years later, become has been even fair would be to unethically exercise a writer's flexibility. The small clear stream which split Carvin's Cove has long been notor-

Perhaps in an attempt to enhance

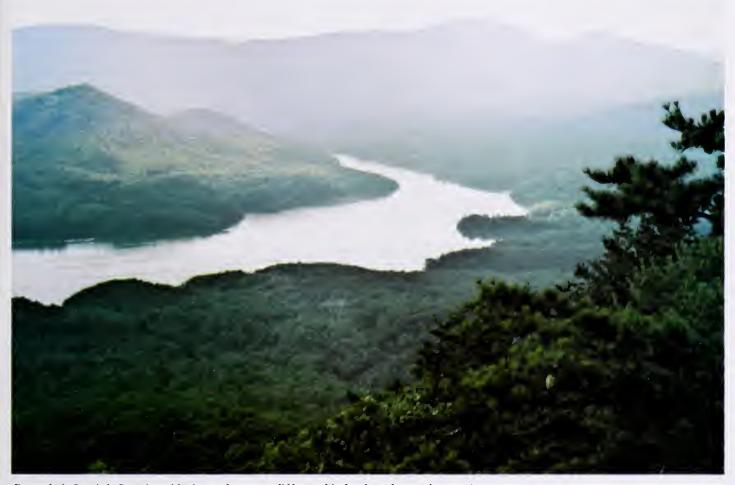
with striped bass, an endeavor that was both applauded and criticized.

Prior to the introduction of stripers, a handful of talented anglers had unlocked the secrets of the cove and were reasonably successful in landing trout, many of which were trophy fish, on a fairly consistent basis. An occasional trout is still caught, but it is apparent the two fish are not compatible. The cove has yet to

Carvin's Cove Dam, shown here during construction, was completed in 1928.



VIRGINIA WILDLIFE



Roanoke's Carvin's Cove is an ideal spot for many different kinds of outdoor enjoyments.

that matter - but many anglers feel tunity it affords to observe the varied wildlife which frequents its shoreline.

Encompassing the emerald lake, 12,000 wooded acres serve not only as a watershed but also provide suitable habitat for numerous animals and birds. The protective status of the watershed (no hunting is allowed) makes it especially attractive to the camera buff and wildlife observer. Deer are bountiful, as are many species of small game. Wild ducks and egrets can occasionally be seen and photographed. At times, wild turkeys and bear can be glimpsed.

striped bass - or any other fish for skirts the edge of the Cove's drainage area, on the crest of Tinker and they are more than compensated for Catawba Mountains. Here, hikers entheir empty creeks by the lake's counter rugged mountain land with beauty, solitude and the oppor-rocky outcrops and spectacular views of the reservoir. On the 11,520 acres of land the city of Roanoke owns within the watershed, there are no maintained trails and few service roads. However, hikers can get a real back-country experience by wandering the ridges and hollows. Deer and turkey are plentiful. Stately yellow poplars and hemlocks tower above cool streams. Redbud, sarvass, and trillium paint the forest understory with bright colors. Broadwinged hawks soar overhead, screaming the shrill cries of a remote land for those who are willing to listen.

There are two access points to Carvin's Cove, the main entrance be-Day hiking and exploring trips are ing just north of Hollins. A second- of quality water will undoubtably ideally suited for the Carvin's Cove ary point may be found by taking insure its unaltered longevity. Maybe

Rock, then right onto state route 740. All boats must be launched from the Hollins entrance (there's a \$1.50 launching fee) and must be trailered by 10:00 p.m. The area reopens at sunrise.

The Carvin's Cove property is a classic example of man's needs and wildlife conservation working in harmony. The essential water it provides, the recreational opportunities it affords and the habitat it creates for countless wildlife - and the whole of this on Roanoke's doorstep makes Carvin's Cove close to unique and totally inspiring.

Other than the lake, which certainly is no determinant, this 12,000 acre chunk of natural beauty appears much the same today as it must have been during William Carvin's lifetime. The lake's value as a reservoir watershed. The Appalachian Trail 311 north 1 ½ miles from Hanging old William would have approved...



Here I am trying to find my way through twenty square miles of mud, covered with three inches of water and masquerading as a bay or Cruising Down Virginia's Intracoastal Waterway.

BY CURTIS J. BADGER

Teagle's Ditch is not really a ditch at all. It's just a place where two large chunks of marsh come together and separate Cedar Island Bay from Burton's Bay. I'm chugging along in the 16-foot outboard, taking my time, watching the skimmers gliding along with the bottom of their beaks cutting through the water, when I hear the familiar sound. Bump, thud, whop, whop, whop, Then silence.

For the third time in less than an hour I'm aground. The poor Evinrude is taking a beating. I tilt the prop up, grab the oar, and start probing again in the oozy marsh mud for something to push on. Finally I find some relatively solid bottom (the oar only sinks in two feet), and in a few minutes the boat is back in the shallow channel.

"Why not do a piece on the Intracoastal Waterway," says the Editor, Harry Gillam. "Write something about the portion that goes through the Atlantic side of the Eastern Shore."

"Sure," I say. "Nothing to it. I've been fishing and hunting in the seaside marshes of the Shore for most of my life. It'll be a breeze."

So here I am trying to find my way through twenty square miles of mud which has covered itself with three inches of water and is masquerading as a bay. There's a channel through here somewhere, but it loves to play hide and seek.

Actually, it's not that bad. I've got the latest coast and geodetic survey chart, and it's right on the money. The channel takes off at some pretty weird angles, but each bend and fold has been dutifully recorded by the C. and G. boys and shows up on the chart as two parallel broken lines.

So now for some background. The Intracoastal Waterway snakes down the Atlantic coast for about 2,000 miles through a series of rivers, creeks, canals, and channels. It begins at the Annisquam River, 26 miles northeast of Boston, and winds down the coast to Key West. Nearly the entire passage is through protected inland waters, although the northern portion goes through some expansive bodies of water: Long Island Sound, Block Island Sound, Buzzards Bay and Massachusetts Bay. From Virginia south, the waterway is more truly an inland passage, using numerous creeks, rivers, bays, and inlets tied together by man-made channels.

The waterway's chief architect is the U.S. Army Corps of Engineers. The Corps constructs and operates the passages and canals and does maintenance dredging on existing routes. The coast guard is responsible for tending the navigational markers and aiding boaters who encounter difficulties with the passage.

In his book America's Inland Waterway, published by the National Geographic Society, Allan C. Fisher, Jr., writes that the idea of a navigable inland passage caught on as early as 1643 when colonists dug a narrow canal connecting the Annisquam River and Gloucester Harbor in Massachusetts so small craft could avoid the long trip around Cape Ann. Similar canalization projects began in the south in the 1700's, spearheaded by planters looking for more efficient methods of shipping cotton and other crops to markets. The Dismal Swamp Canal opened in 1805, and in 1829 the canal linking the Delaware River with the Chesapeake Bay began operation. These were chiefly private ventures, designed to facilitate shipment of goods from producer to buyer. Although the federal government had a hand in some of the canal work as early as 1828, it was not until this century that the waterway became solely a governmental project.

The passage through Virginia offers boaters a choice. Choice "A"





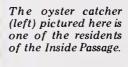
The egret (above) and the skimmer (left) are common sights along the Inside Passage.

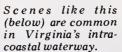


All forms of sea life abound on the waterway.

is the Chesapeake Bay route. For those of us more accustomed to highway travel, it might be termed the express lane of the Intracoastal Waterway. On the north it is reached via the C & D Canal, the man-made channel linking the Delaware River and the Chesapeake. Travel down the bay between the canal and Hampton Roads is quick, easy, and safe, although stiff winds can produce formidable seas in the open

Choice "B" is the scenic route, the Virginia Inside Passage, a series of creeks, channels, and shallow bays that spiral through the rich tidal wetlands that separate the mainland Eastern Shore from the sandy barrier island strips and the Atlantic Ocean. Choice "B" is slower, trickier, but







infinitely more interesting, in my opinion, than choice "A".

Whether you elect choice "A" or choice "B" is a matter of practicalities and priorities. Large boats that draw a lot of water are much more comfortable in the deep and spacious Chesapeake than in the winding and usually shallow seaside passage. And if you're in a hurry, the Inside Passage can be a frustrating maze.

But if you have some time to spare, and you're interested in a fantastic boating experience, the Inside Passage is the only way to fly.

The Virginia portion begins near Chincoteague on the northern end and weaves its way south to Smith Island Inlet and Fisherman's Island. a distance of about 70 miles. The route is clearly mapped out on coast and geodetic charts numbered 1220 through 1222 covering the area from Ocean City, Maryland to Hampton Roads. They are available in many marinas and tackle shops, and they can be ordered from the National Ocean Survey, Building 14, 4200 Connecticut Avenue, N.W., Washington, D. C. Another useful guide is the Salt Water Sport Fishing and Boating in Virginia atlas published annually by Alexandria Drafting Company, 417 Clifford Avenue, Alexandria, Virginia 22305. This guide shows the waterway route, plus the location of boat ramps, and marinas where fuel and supplies are available.

If you're in a rush, the passage can be covered in one day, but you'll be doing yourself an injustice by barreling through. There are too many things to see and do along the way.

The passage goes through one of the last unspoiled barrier island and tidal wetlands systems on the mid-Atlantic coast. Fishing opportunities are excellent all along the passage, and the marshes are a naturalist's delight. From fall until early spring the tidal creeks are filled with black duck, mallards golden eye, mergansers, teal, and a variety of other ducks, plus snow geese, Canada geese, brant, and other winter continued on page 33

Conservationgram



COMMISSION BIOLOGISTS & GAME WARDENS SAVE FLYWAY. The Virginia Game Commission mobilized its forces this past March to combat a potentially disasterous outbreak of avian cholera. The bacterial infection was identified when ducks began to wash ashore on Chesapeake Bay beaches in mid-March. As soon as the disease was discovered, the Commission formed crews of game wardens and biologists to begin picking up the birds that were coming ashore. The probable danger with this type of cholera outbreak is that the migrating birds passing through the Chesapeake Bay region would become infected and carry the bacteria and the disease with them along the flyway and into the Canadian breeding grounds where the loss of birds could be staggering. The only way known to combat this problem is to pick up as many of the dead birds as quickly as possible. Although the weather was probably as bad as it could have been for this type of project, high winds and rain, the wardens and biologists, assisted by personnel from the Game and Education Divisions began cleaning up the beaches. Although the total number of birds collected, mostly oldsquaw, was considerable, over 20,000 at press time, it is thought that the heroic cleanup effort on the part of the Game Commission may have prevented a much larger loss of birds elsewhere.

NEW FEE FISHING AREA TO OPEN. Jack Hoffman, Chief of the Game Commission's Fish Division, has announced the opening of a new Fee Fishing Area. The area became operational on Saturday, April 1, 1978, in connection with the opening of Trout Season, and is in Carroll County. The location is on Crooked Creek near Woodlawn, Virginia which is situated between Galax and Hillsville, Virginia in Carroll County. This brings to three the number of Fee Fishing areas in the Commonwealth where

fishing is permitted for \$1.00 per day. The other Fee Fishing areas in the state are Douthat State Park Lake and Big Tumbling Creek on the Clinch Mountain Wildlife Management area.

ICE DAMAGE HEAVY ON WILDLIFE MANAGEMENT AREA. Timber on the Game Commission's Goshen-Little North Mountain Wildlife Management Area was heavily damaged by the severe ice storm which struck the Shenandoah Valley in late March. "At the top of the east slopes from 30-50% of the timber is down," reports Game Commission Forester Jared Sims. Much of the National Forest nearby is in similar shape.

Although most of this timber is not prime quality, it can present a fire hazard by late summer or early fall if not removed. "The greatest economic losses were in the high coves where up to 20 acre blocks of the area's best timber were

flattened," Sims said.

Contracts will be let for salvage of the marketable timber this spring and summer. "The net effect on wildlife may be good when we get the mess cleaned up," Sims said. The thinning resulting from the removal of damaged trees should stimulate growth of browse and wildlife food plants.

VPI & LUMBER MANUFACTURERS SPONSOR EXPOSITION. The Extension Division of VPI & SU in cooperation with the Lumber Manufacturer's Association of Va. have arranged a two day long bus tour to visit mills demonstrating the latest in lumber drying systems. The tour, which takes place on May 17-18, 1978, will enable participants to see six different types of drying operations, ranging from an experimental solar dryer to a unique wood-gas system which was developed as a retrofit to an oil fired

On May 17, 1978 the tour will begin in Roanoke and end in Richmond the following day just before the opening of the East Coast Sawmill and Logging Exposition, May 19-20, 1978, at the State Fair Grounds. Contact Dr. Marshall S. White, Extension Specialist, Wood Products, Department of Forestry and Forest Products, VPI & SU, Room 210, Cheatham Hall, Blacksburg, Va. 24061, telephone number 703/951-5876.



BY ED PEARCE

Fishing was once the sole prerogative of men and boys. It used to be that the man went fishing alone or with other men. A woman seen fishing was a rare sight, and even then, she sat on the banks and used cane poles and bait. All the men used either fly fishing or bait casting techniques. Effectiveness in fly fishing required years of practice and bait casting skills came only after countless line tangles, scorched thumbs and wearisome hours of practice. Not any more! Spinning has changed all that and now makes fishing possible for all members of the family.

Spinning isn't new, Europeans have been using it over 100 years, but before 1946, it was practically unknown in the United States. U.S. servicemen returning from Europe brought it back to this country and it caught on quickly. American ingenuity took the somewhat crude European spinning equipment and developed it to a point where it can now do almost everything but actually catch the fish. This improved equipment and the many new lures which are almost irresistible to fish have just about wiped out fishing excuses.

Spinning is to fishing what the steel-belted radial tire and rotary engine are to the auto industry. It has proven the greatest advance in fishing equipment because of the new and different type of reel. When in use, it hangs under the rod and resembles a coffee grinder. The line is held on a spool which remains stationary both during casting and retrieving and the line peels off its edge. Casting is practically effortless. Add to this revolutionary reel a drag mechanism which features a friction clutch built into the spool and you have the reasons why you can use much lighter lines than in any other type of fishing. Line tangles are few and far between and all this adds up to the overall ease and enjoyment in fishing.

It's easy to learn; that is, easy when compared to the long, drawn-out practice required to properly fly fish or bait cast. Many beginners learn it sufficiently well to go fishing within a week with a good chance of catching fish. Lest you go at it the wrong way, here are a few tips:

Buy your spinning equipment locally. You'll find many different stores that sell it, but you'll get more help and know-how at a sporting goods store.

Learning to cast can be a lot of fun if you have someone who is already a spinning fisherman to teach you. For practice, use an area at least 40 feet long. Your targets can be pails of water or weighted newspapers, anything at which you can aim--or use your backyard swimming pool.

If you have small hands (this is especially good for children) hold the rod in the right hand with the reel stem passing between the third and fourth fingers. Or, better yet, get a reel with an offset stem and the fingers of the right hand can remain together on the grip. Spinning reels for left-handed members of the family are also available.

If casting isn't almost effortless, you're doing something wrong. With a flick of the wrist, you get almost unbelieveable distance in your cast and accuracy follows with practice. Before you go on your first fishing trip, have your instructor explain and set the reel drag. You're able to use the light lines and still catch the larger fish because of this highly sophisticated drag, and it must be properly preset.

You can use either lures or live bait, and you'll soon learn how to hook and play a fish. Once he's hooked, remember that the drag will do its work and you needn't jerk or pull hard on the line or rod. Be easy with him, he isn't going anywhere. Knowing how to spin can greatly enhance your enjoyment of the outdoors. When you see the light in the eyes of your youngster after his first fish, you'll be repaid many times over for your time spent in teaching. It needn't be that long, if they learn to spin.

On your next outing, look around you. At least 80 percent of the fishermen will be spinning. If you occasionally see a fly rod or bait casting outfit, don't deride them; they still have their advocates and their own particular uses.

Once you have your fish, the cooking and eating comes next. Don't feel that you must serve this or that sauce or vegetable with any specific type of fish. It's purely a matter of personal taste, and you'll certainly want to consider side dishes. Here are a few suggestions: peas, green beans, braised celery, rice and your favorite salad go well with all fish. Do yourself a favor and use wild rice, it's really a treat. If you prefer potatoes instead of rice, then mash them well and beat them in a mixer while adding the finely grated rind of two oranges and juice of one. Put them in a casserole dish and brown in the oven. For still more enjoyment, serve hot buttered cornbread.

A word here about cooking fish. It's easily overcooked, so you have to watch it. Test the fish with a fork as it cooks; as soon as it becomes flaky, it's done. For the ultimate taste and enjoyment, cook fresh fish, the ones that slept in the water the night before.

If your usual family catch is like ours, you'll have several smaller panfish such as bluegills, red-breast, redears, crappie and yellow perch along with bass and maybe pickerel. All make delicious fare when cooked in our family's favorite way: clean all fish under 3 pounds (save larger ones for baking or broiling) and dry. Leave head, tails and fins on. Place a slice of lime and pat of butter in the inner cavity; salt and pepper to taste and wrap in aluminum foil. Be sure to crimp ends tightly. Place wrapped fish directly in charcoals or on top of the outdoor grill. Cook for about 25 minutes. When eating, lift the loosened skin with a fork, squeeze an additional bit of lime juice on exposed fish and you have as delectable a dish as you could ask for.

If you want to eliminate any chance of getting a stray bone, try this: Fillet all fish up to 3 pounds and further cut fillets into bite-size pieces of narrow strips. Mix a batter of 2 eggs, 3/4 cup of milk and enough flour to thicken and salt and pepper to taste. Use a greased deep fryer heated to 350 degrees and drop in pieces of fish. When brown, remove from fryer and let dry. Heat the batter, pour over pieces of fish and serve. They, too, are real tasty.

If you're one of the fortunate few to have freshwater trout, try this one and you'll probably never cook trout any other way:

BLUE TROUT: Wash and dry a dozen small new potatoes. Cover with water in a pot, add a teaspoonful of salt and some thyme, and put on to boil. Dry 8 small trout (less than 12 inches) with a towel and snip off fins, leave heads and tails on and don't wash or scale trout.

INGREDIENTS

1 cup white vinegar
8 tblsp. wine vinegar
Juice of 2 lemons or limes
1 medium size onion (chopped)
1 bunch celery hearts (chopped)
2 cloves
1 carrot (chopped)
2 qt. water
2 tsp. salt
2 bay leaves

Combine all ingredients except trout in a 4-qt. dutch oven. Bring to boil. Simmer 30 minutes. Then strain mixture through cheesecloth or colander. Bring remaining liquid again to a boil, and drop in trout. Simmer, uncovered, until trout turns blue and flakes easily (about 8 minutes). Remove trout from fluid, coat with butter and serve with buttered, boiled potatoes, hard-crusted bread and beer. Now that's a fish!

Get all the fun in fishing by spinning, catching the fish, cooking and eating them together, and you've not only completed the cycle of the sport of fishing, but also gone a long way toward welding members of the family into a happy, contented unit. That makes it all worthwhile!

THE MOTH CATERPILLAR

The caterpillar has an enviable mission in life: to eat as much as he can before becoming an adult.

BY BILL WEEKES

You come upon them mostly by accident. Many are indolent, just resting on a twig. Some crawl at their own characteristic paces, seemingly on a mission. But the wormlike caterpillar does have a mission: to eat as much as it can before becoming an adult.

Being a moth or butterfly, the adult is very unlike the caterpillar. This marked difference in form is termed complete metamorphosis. Usually during the spring the moth or butterfly lays eggs. They hatch soon thereafter into a second stage: the larva or caterpillar stage. The caterpillar grows at a phenomenal rate during its two or three months of existence, shedding its skin several times during this growth. The caterpillar eventually goes into a resting stage during which it grows into an adult. The moth caterpillar rests in a silky cocoon or pupa, while the butterfly worm becomes an adult in a hardened chrysalis.

A caterpillar usually has 12 segments, discounting the head. Attached to each of the first three segments is a pair of five-jointed legs, which later develop into the legs of the adult. The leg stumps on the abdomen are not real legs and are shed with the last molt.

The caterpillar has six eyespots on each side of its head and is guided along its way by a pair of short, jointed feelers.

Because of these characteristics, these creatures fall into the phylum arthropoda (jointed-legged animals) and class insecta (head clearly marked from the rest of the body).

The body of the caterpillar may be naked, as in the case of the "measuring worm" or tomato Sphinx Moth caterpillar, or may carry hairs and bristles, like the saddleback caterpillar, the tent caterpillar, or the larva of the milkweed moth. These are among the caterpillars with which I became familiar when I lived in Virginia.

The saddleback caterpillar (Sibine stimulea) is one example of a device used by these insects to protect themselves. Some caterpillars have glands which secrete unpleasant smelling fluids. Others have a sickening taste which discourages certain predators from devouring them. Some caterpillars bear false eyespots or brandish long, whip-like appendanges which serve to scare away a would-be-attacker. The saddleback, a green larva with little brown "saddles" on their backs, carry venomous spines which are painful to the touch. I have felt the sting of these creatures on occasions when picking beans in the garden in mid-September. The saddleback caterpillar becomes a brown moth.

Unlike their sucking adult counterparts, caterpillars are equipped with strong, biting jaws which can defoliate vegetation with devestating results. The ravenous appetites of these larvae may strip trees and make bare fields and forests.

One example is the caterpillar of the Tomato Sphinx Moth (Phlegethontius quinquemaculatus), which I have discovered chewing up my tomato plant leaves in September. This green caterpillar carries a familiar pattern of diagonal white stripes on both sides, with a little hook-like horn at its rear. This organ has resulted in this creature also being called a horn worm. The color of these larvae act as protective coloration, but signs of large chunks being chewed out of tomato leaves act as a giveaway that the caterpillar is nearby.

A caterpillar which defoliates the milkweed plant is, unstrangely, the larva of the milkweed moth (Echaetia egle). This is a furry caterpillar with orange and black hairs and a few strands of white hairs fore and aft.

One of the worst defoliators, however, is the American or Eastern tent caterpillar (Malacosoma americanum), which can be so profuse in May and June that one can commonly see them crawling across highways. White silken nests, housing these creatures, can be easily spotted during the spring, in the crotches of trees. These caterpillars are especially fond of defoliating the leaves on such trees as the wild cherry, wild plum and may do extensive damage in apple orchards. The caterpillar is credited with damaging more than a billion board feet of saw timber a year. These creatures became so numerous that they swarmed over the tracks of the New York Central Railroad near a town in New York in June of 1952. They halted a Diesel locomotive pulling a string of empty ore cars for half an hour. These caterpillars were so numerous the wheels of the locomotive could not get



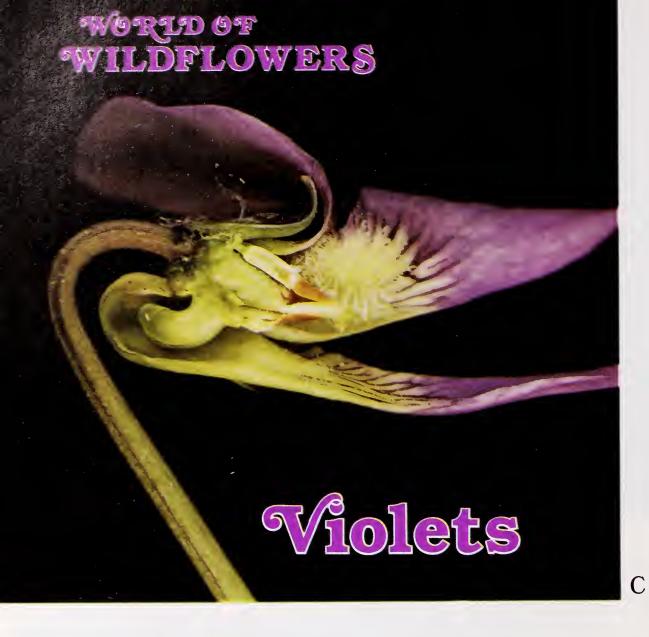
The sabine stimulea (above) blends in well with his leafy background.

enough traction to move. These brown caterpillars with white spots become stout-bodied moths whose colors vary from light to dark brown.

Another familiar caterpillar is the "measuring worm," the larva of a moth in the Geometridae family. This green critter crawls by looping its body and bringing its hind feet up to its forefeet. Then it stretches its forefeet out again, as if it were measuring the twig or stock on which it is found. This caterpillar practices mimicry by stretching out its body in such a fashion as to resemble one of the twigs on which it is crawling.

Despite mimicry, protective coloration and the other survival devices mentioned above, an extremely small proportion of those caterpillars hatched ever reach the adult stage. Parasites and larger animals consume many caterpillars, but nature has compensated by producing a great many of these fascinating beings.





By NEWTON A

he common blu sentimental favor associated with affect last week in March t widely distributed, 1 dwellings and damp w tions, but do not do v ate a great deal of sur mon violet is a close re

There are about 51 species tend to hybrid hybridise with 14 oth tion the species V. p varies within the spec



B





CARROW

et is one of the old fashioned, A nosegay of violets is generally r caring. They appear about the he first week in May. They are on roadsides, meadows near They tolerate moist to wet locarding in water. They will tolerate best in open shade. The comforthe garden pansy.

es of viola and the closely allied or instance, V. papilionacea will orming distinct hybrids. In addinacea, or common blue violet, 'he flowers are 1¹/₄ to 1¹/₂ inches





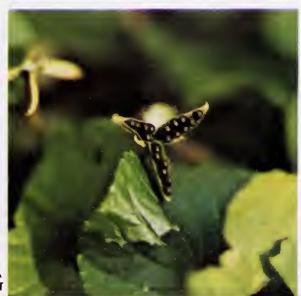
across. The color of the flowers will vary from dark purple to light blue (A) & (B), on to almost white or light gray, with the darker veins which is known as the confederate violet. One of the surer characteristics of field identification, short of some very technical aspects, is the shape, texture configuration and color of the pistil (C). Also, we can see the spur formed by the beardless lower petal where the nectar is stored. We can also see the beard of the two side petals, also characteristic of this species. The plant arises from a stout horizontal rhizome that branches with age and from which the fiberous feeder roots spread (D). Note the characteristic tiny sepals midway of the flower stem. Sometimes in the older clumps, the rhizomes push each other out of the ground. In the spring the fruit follow the flowers (E). More interestingly, however, in the fall, from the first of October until hard freezing in December, the Cleistogamous (flowers that do not open and are self fertilizing) flowers appear (F) as lumps on the exposed rhizome and produce fertile fruit. There is a difference between the two. The spring fruits are much narrower and retain the pistil (E), while the fall fruits are much fatter and the calyx is less distinct and do not have the protruding pistil (G). The fall seeds seem to be the most productive, producing a larger percentage of new plants. When the fruit matures, it splits into 3 valves (G), with rigid members (keels) along the bottom, as the edges dry they curl inward causing the seed to pop out sometimes to a distance of 9 feet. The seeds are less than 1/8 inch in diameter and varying from a light motteled brown to almost black. The common violet is very hardy and may be propogated either by the seed or division of the rhizome.

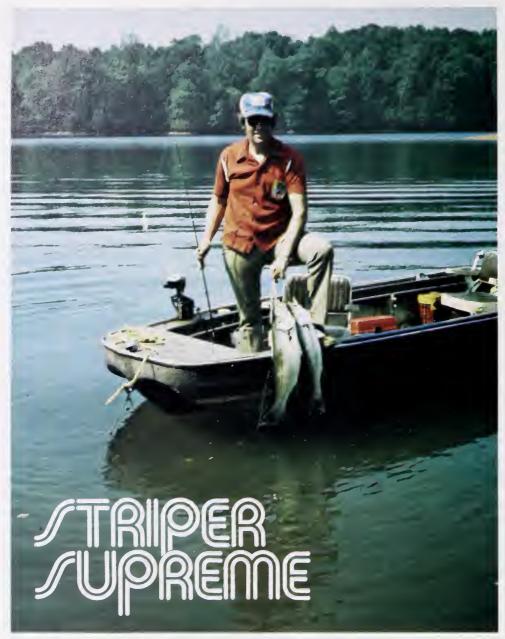


E



F





BY BILL K. CRUEY

ould the male striped bass I landed recently be a new world's record? This question suddenly occurred to me as I inquired about the 36 pound, 43 inch male striped bass I caught on Smith Mountain Lake near Roanoke. But what difference does it make? World records are not kept according to sex.

caught regularly in both fresh and salt water. Just a few months ago, a 50½-pound landlocked female chased a home on Smith Mountain striped bass was caught by Fred H. Lake near Roanoke. The move

Kunkle in the Colorado River. This fish is thought to be a new record for landlocked striped bass. On June 16, 1967, Charles Cinto caught a 73-pound female striped bass off the Massachusetts coast. It is the unofficial world's record. Striped bass have one thing in common with largemouth bass. The Large striped bass have been real trophy fish are invariably female.

In the spring of 1975, I pur-

meant commuting about 30 miles to my law offices in Roanoke. I was born with hunting and fishing in my blood. The move was a natural one for me and my family.

In the fall of 1975, a friend, George O. Hopkins, also purchased a home on the Blackwater arm of the lake. He was not an avid fisherman. His limited fishing experience had been in pursuit of the largemouth bass.

But Hopkins' interest in fishing increased after his move to the lake. During the spring of 1976, he spent considerable time on the lake largemouth fishing. Though fishing was at times outstanding, Hopkins became concerned about the large quantity of carp in the lake. Sometimes the water appeared to be alive from the splashing of the fish.

It was a beautiful evening on Smith Mountain Lake as Hopkins sat back and relaxed in his front yard overlooking the lake. As any good fisherman would do, he baited two light outfits with live minnows and set them.

He pulled up a chair, propped up his feet, and dreamed of a 10-pound largemouth. The sunset sparkled in the water as the carp rolled and splashed playfully breaking the silence of the evening.

Suddenly, Hopkins heard a zip-zap-zip. He sprang to his feet and grabbed the rod. The rod tip danced as the line peeled off. He set the hook with a quick snap. The ensuing battle was something to behold. The species of fish was unknown. It moved with lightening speed as it headed to deeper water. After several minutes of sporting battle, the fish was landed. Hopkins observed the long, silver fish with black stripes as it was landed. What a fish! It was 22 inches long and weighed $7\frac{1}{2}$ pounds. He did not know the identity of the fish.

After transporting the fish to a nearby country store, Hopkins discovered that the scrappy fighter was a striped bass or rockfish. Striped bass had been stocked in Smith Mountain Lake for over 10 years.

Much to Hopkins' amazement, the buck-tails and deep-running plugs. handle of the net with both hands. I fish he caught was barely a keeper. Virginia law requires that striped bass taken from the lake be 20 inches in length to be a legal catch.

Then the real shocker came. Hopkins was advised that striped bass often emerge to surface feed on shad. At these times the fish often break water and viciously attack any type lure thrown at them. Hopkins thought, "Carp-oh, no! They weren't carp!"

Hopkins and a fishing companion, Donald Skeens, nicknamed "Duck," had spent several weeks in the best striped bass fishing territory in the country, unaware of the fish's existence. "Looking back now," states Hopkins, "I remember times when the fish actually rocked our boat."

Hopkins and Duck began immediate plans to pursue the striped bass. Armed with a new bass boat, two light spinning outfits with 12-pound test lines and a couple dozen large minnows, the conquest was on. During the next few days, the pair landed numerous striped bass, each of which weighed almost 12 pounds.

wasn't anything in the lake but 12 pounders," stated Hopkins. Then one day, it happened. Hopkins' wife, Anita, hooked a large striped bass. It weighed 18½ pounds.

It was at daybreak on Friday, May 21, 1976, that I embarked from my dock. I had an uncontrollable impulse to be on the lake that morning. I had caught a number of stripers in the 15-pound range. Most were caught while the fish were surface feeding on shad. In striper fishing lingo, they were "coming up."

My favorite technique for I had previously landed. striped bass fishing is thus. I usually start fishing for the stripers at daybreak. I proceed to an area where I know stripers have recently been observed or caught. I begin casting to the bank while looking for

yourself. This technique is called aboard. "jump fishing." There are few thrill.

casting toward shore with a silver scale broke. spoon when I heard water splash behind me about 300 yards away. I water. I left the large fish laying in started the motor and quickly pro- the boat and continued casting. ceeded to the area.

another cast. I cranked the reel 10 or 12 pounds. I released them. twice--and bang! The fish rolled and struck my lure.

happen this time.

fish was more powerful than any I a comtempt citation. had landed in the past. It headed viously larger than any striped bass cocktails that evening.

boat. I gripped the rod and reel in bass stocked in Smith Mountain my right hand and lowered the net Lake nearly 11 years ago. with my left hand. I gently eased the fish toward the net. Suddenly it one ear open listening for that splashed and nose dived-- would familiar splash of the striped bass. the fish to surface. My three favorite you believe--directly into the net! I Who knows, just maybe--a lures are silver spoons, white quickly grabbed the aluminum 40-pounder off my dock.

I normally stop the boat about slowly raised the fish from the water. 100 yards from the area where the Suddenly, the handle bent almost fish are breaking water and use my double as the fish descended back trolling motor from that point. If a into the water. In near panic, I cast can be made near the fish while grabbed both sides of the rim of the they are still surface feeding--brace net and wrestled the large fish

I had a small hand scale in my sporting events that offer a greater tackle box. It registered 28 pounds. I hooked the scale to the fish's I began fishing just a few hund- mouth, took a deep breath and red yards from my home. There lifted. Fifteen, twenty, twenty-five, were no fishermen in sight. I was twenty-eight--and "snap" as the

But the fish were still breaking Within 10 minutes, I had two more I made a cast. Nothing. I made stripers in the boat. They were only

The fish had quit breaking water splashed water into the air as it by now. It was 7:00 a.m. Curiosity got the best of me. I headed for My drag was set just right. The Smith's Paradise, a marina a few fish peeled the line. I sat back and hundred yards away. I lifted the relaxed. A few days earlier a large fish onto the scales at the marina. fish had straightened the hook on a Thirty-six pounds. Wow! I quickly buck-tail lure because my drag was loaded the fish into the boat and too tight. That wasn't going to was homeward bound. I awoke my wife and three children. I deposited The fish went deep. It proceeded the fish into a large trash can of "For a long time, I thought there toward the shoreline about 100 water and loaded it onto my Scout." yards away. The line peeled off I blew my wife and kids a kiss as steadily. I began to wonder about they proceeded to the Crappie Hole the unusual power of the fish. It in Roanoke to enter the fish in the then turned to my left and dived contest. I was in court 10 minutes deep. I began to realize that this early with a fish citation instead of

> My fish was weighed at The toward the boat as I reeled vigor- Crappie Hole at 36 pounds even. It ously to keep the slack out of the had held its weight, and was line. The fish passed the front of promptly put on display. Thus, my the boat and made another run. I friend Hopkins was replaced as the began to wish for a fishing compan-striped bass "expert" of Smith ion. After several more runs, I had Mountain Lake by two full ounces. the fish beside the boat. It was ob- Hopkins and Duck joined me for

The 36-pound male I landed was I had a large landing net in the probably one of the first striped

As I go to bed each night, I keep

Wildliffe

Union Camp Provides Woodpecker Home

The Woodlands Division of e Union Camp Corporation s agreed to set aside at least ie area on Union Camp's nberlands as a sanctuary for e endangered red-cockaded oodpecker. Mr. R. M. Osborn, nion Camp's Woodlands Divion Manager, working with ofessor Mitchell A. Byrd of e College of William and ary, has indicated that prioriwill be given to a parcel of nberland in Sussex County lown as Block 306. This oodland is considered to most arly meet the requirements this endangered species. The d-cockaded, woodpecker quires a special habitat for rvival. The bird prefers ature stands of long leafed nes (such as loblolly) where e wood has been riddled by d heart disease (a fungus), nich apparently enables the d to carve out a nesting cavi-

Work is also afoot in Marynd, according to the U. S. sh and Wildlife Service, to aid is endangered bird. An ploration is being conducted eastern Maryland for any mnant colonies. The last own groups of these woodckers were found in the ackwater National Wildlife fuge. All potential habitats ong Maryland's Eastern Shore we been mapped and a pund search is continuing in e most promising areas.

The Staunton is



THE STAUNTON BECOMES A SCENIC RIVER. Surrounding Governor Dalton as he signs this important legislation are, from left to right, Art Buehler, Frank Slayton, Thomas Smutts, Joseph Crouch, Tom Evans, Ms. P. K. Pettus, Dr. Allan Hoffman and Jack Randolph.

a Scenic River



Doris McCray's third grade at the Apple Grove - Shelfar Elementary Complex in Mineral made this attractive bulletin board with pages from the Game Commission's wildlife coloring book.

Coming next month...

A Mixed Bag...

Author Karen Green shows us bluefishing and crabbing near Colonial Williamsburg

Heartworms...

A look at this parasite and how it can affect your dog

Rock Castle Gorge... How has this community changed during the centuries?

Plus winners in the People in the Outdoors category of the Virginia Wildlife Photo Contest.

TACKLE BOX TIPS



The tackle box is important, both for the fishing equipment it contains and the other things which smooth a fishing trip.

It holds a pocket-sized raincoat, of course, and sunburn lotion and insect repellent and sun classes.

There'll be a plug retriever to save those expensive lures, a first aid kit in case of the wrong kind of hookups, a tape measure and a DeLiar to check out the fish, a hook hone, a compass and a flashlight.

Electrician's tape is helpful for quick repairs, and a GI candle will open those balky rod sections. Pipe cleaners and rubber bands will hold line in place on spinning reels and fix rod sections into a compact, easy to handle and protected bundle.

Courtesy UMCO Corp.

Kaleidoscope

Book Review



The Mourning Dove is the newest in Winchester's well-known series on major American game birds and mammals. The 114 page paperback book is a detailed treatment of the life history, hunting and management of our most widely hunted game bird.

The Mourning Dove is available at cost, \$2.00 per copy, from the Conservation Department, Winchester Group, Olin Corporation, East Alton, Illinois 62024.

Limited quantities of other booklets in this series are still available at \$2.00 per copy. These titles include, The Cottontail Rabbit, The Mallard, The Ring-Necked Pheasant, The White-Tailed Deer, Gray and Fox Squirrels, and The Elk and Ruffed Grouse.

Whoopers Survive Shooting

A new Mexico man, convicted of trying to kill two whooping cranes near a Federal refuge last fall, has been sentenced to serve 30 days of a 6-month jail sentence and has been prohibited from hunting or carrying a firearm for 3 years.

Thurman Ural Witt, 28, of Albuquerque was also given a 3-year term of supervised probation by U. S. District Judge Edwin Mechem. Sentence was imposed February 27 in Albuquerque. Witt was found guilty in January on two counts of violating the Migratory Bird Treaty Act.

The violation occurred near the Bosque del Apache National Wildlife Refuge in New Mexico's central Rio Grande Valley. The whoopers Witt attempted to take were part of an experimental flock that the U. S. Fish and Wildlife Service (FWS), the Canadian Wildlife Service, and State wildlife departments are trying to establish. Crane biologists believe that establishing a second, separate wild flock will greatly increase the endangered whooping crane's chances for survival. Greater sandhill cranes, which nest in Idaho and winter in New Mexico, are being used as "foster parents" to hatch and rear young whoopers. This winter, there are six whooping cranes in the experimental New Mexico flock, and 70 in the original flock that winters on the Texas Gulf Coast.

Conservation Course Announced

Here is a course designed for teachers of conservation. It is planned to increase your effectiveness in resource-use teaching in the schools of Virginia. Although these classes are for all teachers, first through twelfth grades, and supervisors and administrators, it may be taken by other interested individuals.

Plan to be in one of the 1978 conservation courses. Fill in and sign this form and send it immediately to the Virginia Resource Use Education Council, c/o E. W. Mundie, Seitz Hall, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. IMPORTANT---Be sure to indicate the college of your choice.

I am interested in the Natural Resource Conservation Course offered at:

V.P.I. at Blacksburg June 19-July 8, 1978

V.P.I. at Reston July 5-July 25, 1978

Virginia State College July 10-July 28, 1978

William and Mary July 17-August 4, 1978

Date	
Name	
Address	

NATIVE TROUT

BY BOB BELTON

he fury unleashed in the long, The tury unleasing in deep, swift pool of the icy mountain stream was something to behold. The native brook trout twisted, turned and fought like a wildcat. Between his own powerful, dogged struggle and his instinctive use of the fast water, I thought my ultralight spinning rig might be outdone. Slowly, though, and very carefully, I maneuvered my determined opponent toward the rock bank and just due. Hatchery-raised trout are the net skillfully wielded by my fishing partner, Charlottesville attorney Harry Bailes.

Finally, the trout was close enough and under reasonable control. Harry slipped the net under him and there he was, resplendent in that wild. Flaming red-orange on the underside, red spots on his heaving sides, with a shining, still defiant splendor about him; even in defeat. he was a thing of beauty.

In The Eastern Brook Trout, aufontinalis:

> 'Artists and poets are thrilled at the sight of such lavish use of dazzling color, and the ordinary man is reminded of magnificent sunsets he thought he had forgotten... Now we understand the age-old phrase "Bloom of the trout" and think that here some of the more beautiful flowers have lent their shades to give a diffusion of such hues as mortal man never elsewhere beheld. The rose is here, and the violet, and the moist green of moss and sweet fern... Thus, our trout becomes a

symbol of all things in the out-of-doors. Like a ruffed grouse or a raft of wild geese, this fish quickens our pulse and stirs to life fine threads which tie us to our primal past."

Stretched out against the rule which is painted on the side of my canvas creel, this splendid "brute" measured just under 10 inches. Save your snicker now, friend, lest you fail to give native Virginia trout their one thing, and a pleasure to stalk and fight when they are stocked throughout the state, but in a match of wiliness and relative fighting skill, the savage native is in a class all by himself.

We had started down the east side magical beauty born of life in the of the Blue Ridge early in the afternoon of a perfect Sunday in early May. Dogwood was in full bloom, but another week of spring weather would be necessary to bring out the new leaves on the deciduous trees. Wild geraniums, showy orchids, viothor Bob Elliot says of Salvelinus lets and other less common wildflowers--which neither Harry, I, nor his wife, "Scoopie," could identify-decorated our path from the ridgetop starting point where we had parked my car, to the end of our hike, where Harry's car had been left earlier in the day.

> Besides our fishing gear, we had packed lunch and supper, a few emergency supplies in case of unexpected trouble, and a Potomac Appalachian Trail Club map of the section of the Shenandoah National Park in which we were interested.

> Our approximately 5-mile fishing hike took the remainder of the afternoon, with most of that time spent in the stream, wading, casting, slipping on moss-covered rocks, and wishing we had taken time to put felt soles on our hip boots.

What we saw along our watery course was awesome, majestic and beautiful all at once-sheer cliffs of granite; great stands of huge, deep green hemlocks; sparkling green mosses; and, always, our primary objective, the rushing, tumbling stream and the exciting challenge it held.

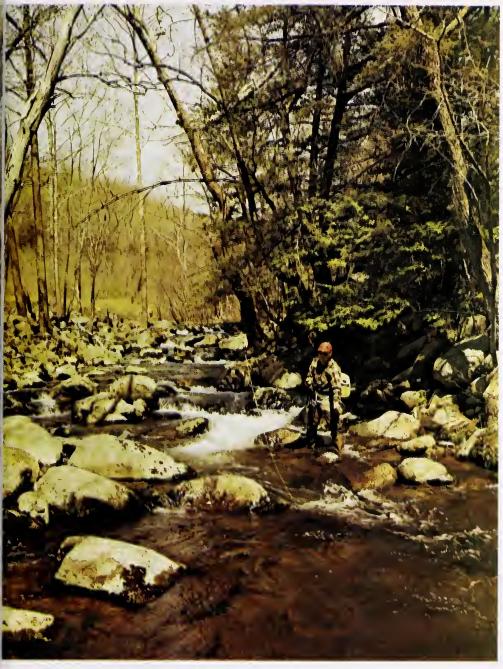
Harry initiated the action with a "keeper" right from the start. Using a nymph of the "C. K. Special" variety which he had tied himself, and the fine 7½-foot fly rod given him by Scoopie, Harry entitled this beauty out of a small hole before we had fished half an hour. We fished slowly at first since nearly every 15 or 20 steps brought us to another likely looking spot. We had separated some from the beginning, with Harry fishing at angles or upstream to the pools with his fly rod and me casting my lure cross-current or downstream. Scoopie waded the icy water or, whenever possible, walked the bank, scouting out nice holes for us, drinking in the scenery and, most importantly, carrying our chow in a knap-

Harry picked up two more scrappy natives, but they were a little shy of the 8-inch "keeper" requirement in size. In spirit, though, they were plenty big and Harry was enjoying the action immensely. One of these two little demons charged halfway across the pool in which it was lying to gobble the darting nymph, though they are seldom so completely fooled.

Neither of us felt cheated when our catches didn't reach the required 8 inches. When fish fight like these did, most anything you hook will give you an invigorating battle.

A little farther downstream, I latched onto my first of these rugged fighters. He was an inch or so undersize, so back he went, with as little harm as possible from the single hook. (No double or treble hooks are allowed in National Park waters.) "Keeper" or not, I was glad to have landed my first native.

The action really got moving at



The quiet of a stream and the satisfaction of catching trout are pleasures not easily matched.

tore into my spinner-fly combo. I hadn't gotten over the excitement of landing this one when, in the next pool, another smacked the spinner hard. He fought as hard as he hit, staying low in the fast water and giving every inch grudgingly. After a few tense moments, I wrestled him out of the water and admired his fierce beauty.

strike twice in the same spot, I cast again into this picture-perfect, chute-like hole and was rewarded for itself.

the next pool, where a larger native such audacity with a jolt that left no doubt that I had a good 'un on. Thus ensued the battle described at the beginning, and I had had enough thrills to last, well, at least until we could wade downstream to the next pool.

Harry expertly hooked and landed another near keeper not 10 feet from our lunch spot at the base of the cliffs which line one side or the Hoping that lightening might other of the stream for most of its course. Watching Harry maneuver that fly rod was a real pleasure in

By the time we got out of the stream for good so we could hike to Harry's car before dark, we had landed 12 fighting natives. We kept the four that were regulation size (the limit is 5 each in Shenandoah National Park) and were happy to release their smaller but tough "little brothers" for another battle in a year

You're probably wondering in which stream this pulsating action took place, but, truthfully, what does it matter. There are enough streams in Virginia which hold natives that my not identifying this particular stream won't rob you of your one and only chance. Fact is, a large part of the fun and satisfaction is doing the research and planning that go into a foray after the crafty native.

A few hints, though, to help you locate a good native stream, may be in order. First, it is reasonably logical to figure that some streams stocked by either federal or state authorities offer native possibilities farther upstream than where the stocking occurs. Second, Potomac Appalachian Trail Club maps of the Shenandoah National Park area are immensely helpful, as are the rangers stationed in the park. The PATC maps can be purchased at Shenandoah National Park concessions or directly from the PATC, 1916 Sunderland Place, Washington, D. C. 20036.

Another good source is county maps, usually available at the county seat. Also, Alexandria Drafting Company, 417 E. Clifford Avenue, Alexandria, Virginia 22305, compiles and publishes "Freshwater Fishing and Hunting in Virginia," which can be purchased direct or at local sporting goods stores. The price is \$6.95 for the 1977 edition.

Now you're on your own. Better add some energy, determination and a good pair of felt-soled hip boots to that scouting information. Better take along a stout heart, too, so you will be a worthy foe for the noble native.

BY SANDY COLEMAN

My father would point out things in the woods and speak of them in a fairy-tale manner and that made them stick. I began to watch for the imaginary creatures he talked about, such as fairies and elves.

"By looking intently and waiting for the creatures to appear, I began to see small items I might have missed, such as small seeds, mosses and lichens. As I grew older, I began to see also the tremendous detail in nature, how vast and intricate it is."

Thus, Sallie Middleton describes her awakening to the beauties of nature.

Middleton, who currently works and lives in Asheville, North Carolina, paints her wildlife and nature scenes in watercolor, a medium that she feels relates to nature: "Watercolor is an elusive medium and nature is elusive. In some ways, watercolor does some of the painting. You can control it, but it does some of the painting. That is what happens in nature, too. Nature does some of the painting."

Whenever possible, Middleton takes her watercolors outside to paint from life. She carefully studies every subject she paints, subjects that range from mountain wildflowers to cardinals to foxes. She differs from many wildlife artists in that she does not buy musuem specimens, relying instead on the work of a special taxidermist that she calls her "mountain man." She will



SALLIE



describe her artistic specifications, and the taxidermist will preserve a model as she has instructed him. Meanwhile, Middleton will take a bucket and shovel, leave her studio and go in search of background material that will compliment her subject's nature and pose.

"A leaf with a worm hole init is more interesting as a subject than a perfect leaf. You may know a bird from stem to stern, but you can't make up the things that give him a personality, like a feather missing or a look in the eye," Middleton says of wildlife painting.

As her reputation as a wildlife lover has grown among her neighbors, Sallie Middleton has become the recipient of wounded or motherless birds and animals. Some of them have become subjects for her paintings. Rosemary, a raccoon who was a houseguest for several months, made an interesting and mischevious subject for a Middleton painting.

Prints of Sallie Middleton's paintings make it possible for almost everyone to enjoy her work in their home. These prints are available from Foxfire Fine Arts of Charlotte, North Carolina. Inquiries should be addressed to Foxfire Fine Arts, 2730 North Graham, Charlotte, N.C. 28206.





"In painting the rabbit, I was most interested in the V patterns that took place when he sat alert with his front paws neatly crossed in front of him. His ears are exaggerated for effect," Middleton says of her subject.

Middleton on the yellow-shafted flicker: "He reminds one of the flashes of sunlight that gleam through flickering autumn leaves."

MIDDLETON



"If you listen quietly in the woods, you will hear every instrument of a symphony and more -- the arousing, emphatic sounds of the pileated woodpecker," (opposite page) is Middleton's view of this striking bird.

"Even during the hottest days when other birds are resting in the shade, this tiny bird sings energetically, as if boasting of his brilliant summer feathers," Middleton feels of the indigo bunting in his colorful surroundings.

Virginia

John Bunch of Carrsville got a close look at this squirrel.

John Irby of Ashland placed with this monarch butterfly.





These two deer were caught in this unusual position by Stanley Greene of Mechanicsville.

These hungry boat-tailed grackles were caught by Dorothy Mitchell of Newport News.

Photo Contest Winners Wildlife Category

The photos here placed as Honorable Mentions in the Wildlife Category of the Virginia Wildlife Photo Contest.

In upcoming issues, we will feature the Winners and Honorable Mentions in the remaining two categories of the contest, Nature and People in the Outdoors.

> Jim Mize of Arlington captured this deer in motion.





The Watterstrop Edited by Jim Kerrick

PICKING THE PROP

Do you use your boat exclusively for fishing?

Or does the same rig also serve as a family cruiser, a tow boat for water skiers and, occasionally, a work-

can give an old rig new life.

Consider, too, that many new propellers have been developed in recent years--propellers in new sizes, shapes and materials that will do things that vour current propeller could never

For instance, there are now teflon-coated stainless steel propellers (SST's) available for bigger outboards that can increase boat speed as much as two miles an hour and are virtually indestructible

There are some propellers for speed, others for heavy hauling.

You need "low gear" for pulling away from the dock with a load of people and picnic gear. But it takes "high" gear to get top acceleration when you're zipping along in a nearly empty boat.

In both cases, the propeller simply throws water to the rear, causing the boat to move forward. The difference is how much water the propeller is designed to affect with each revolution.

The greater the throw, the faster the boat moves — unless it is too heavy. Then an undue strain is exerted on the motor, like forcing a heavily ladened car uphill in high gear.

The answer lies in the propeller's diamater, its pitch (amount of twist in the blades) and the number of blades.

Blades with low pitch throw less water, letting the propeller spin with a minimum of strain. This is recommended for heavy craft. Lightening the load enables the prop to throw all its muscle against the water, and maximum speed is gained with a high pitch propeller that takes a deep bite in the water.

If you have a racing hull, a "wheel" with two blades steps up the speed even more. For general service, though, most boatmen use a prop with three blades.

The propeller's diameter also Many do. And picking the right figures in how much water is thrown. propeller for these changes of pace But you face no decision here, because most outboard motors use the biggest propeller possible that will clear the cavitation plate.

> Making up your mind about pitch is simplified by a chart issued by out-



Restoring the pitch to a bent prop is a job best left to experts. Photo courtesy Evinrude Corp.

board manufacturers. It shows recommended propeller pitch and blade number for various combinations of boat length and weight.

By trying a propeller and checking the boat speed against the recommended range, you can tell whether you are overrevving the engine or not.

Generally speaking, use the prop pitch that enables the engine to

develop its top-rated r.p.m., because it's here the engine will be delivering top horsepower.

Mounting the propeller that's right for the job will help give you more fun on the water than ever before.

SHARPEN CHINES

Here's a little tip the professionals use: sharpening chines. The chines are the edges along the bottom side of your boat and at the transom. On fiberglass boats these edges are almost always dull and rounded. Water will cling to this type of surface and cause a dragging effect. Sharpen them until they are square with the transom and the bottom. Finish with a wet sanding and rubbing operation.

Balance is one of those words of advice boaters receive all the time, then seem to ignore. But it's one of the most important improvements toward increased performance you can make. For speed, the best boat balance occurs when the center of balance in your boat is as far to the rear as possible. This will mean that the boat will require less horsepower to keep the bow out of the water and that extra horsepower can be used to push your hull faster. Eliminate all unnecessary weight, especially water in the bilge.

Beyond these tips mentioned here there are many more. Most require \$\$\$ or a lot of time. For instance, boat racers make sure their hull bottom is perfectly straight at the rear planing surface. This requires some tedious block sanding or fiberglass work to eliminate what are called "hooks" and "rockers." If you've got the time and inclination, this one step alone could increase your speed up to five miles an hour.

When you've made these improvements take your boat out and see if vou don't feel a little more wind in your face.

Happy boating.

Personalities



Recently two employees of the Virginia Commission of Game and Inland Fisheries retired after having served that organization for a combined total of forty-eight years. They are Virgil C. Boone, who began his service in March of 1940, and Howard Carter, a veteran of ten years with the Commission. The nearly half-century period during which these dedicated and highly motivated employees served the Commission and the Commonwealth saw many changes to and progress in the scientific management of the fish and game in Virginia, all of which have proven to be beneficial to the sportsmen and women of the state.

Virgil Boone was born in Grayson County near Comer's Rock, Virginia. The family moved to Wythe County when he was very young and he did most of his growing up in Speedwell, Virginia. Following completion of High School, Virgil engaged in a variety of endeavors and different types of employment until March 16, 1940 when he joined the Game Commission. First as a Deputy and later as Refuge Supervisor, Boone was involved in the first deer and turkey stocking in Wythe and Grayson counties. He recalls bringing the deer in from Pennsylvania (under a cooperative agreement between the states) in a 1939 stake-bed truck covered with a tarpaulin. Since that time he has been involved in live-trapping and stocking deer in 18 south-

west Virginia counties. Throughout his career with the Commission, Virgil has gained the most satisfaction from working with the wild animals, birds, fish and with the sportsmen. Most importantly he has enjoyed being a part of creating the renewable resource which he has seen go from nearly zero numbers of deer to the point when the deer harvest has reached over 66,000 per year. Virgil and his wife, the former Alice Sult of Rural Retreat, live in Speedwell, Virginia. They have one son, John.

Howard Carter is a native of Richlands, Virginia. He grew up in the mining country of southwest Virginia where his first love has always been the outdoors and wildlife. While he was a young lad he was able to do a considerable amount of hunting and fishing and just appreciating nature. For some twenty-six years he worked as a coal miner and left that occupation to join the Game Commission in 1967 as the Refuge Supervisor for the Poor Valley Wildlife Management Area. Looking back on the ten years that he has been with the Commission, he feels greatly rewarded by his association with sportsmen, wildlife, the outdoors and the wonderful people with whom he had the privilege of working. Howard and Mrs. Carter (formerly Lily Mosley of Tazewell County) have four children and they live in Tazewell, Virginia.

Growing Up Outdoors By Sandy Coleman

THE BIRD NEST

Amy, standing at the windowsill, was looking at the branches of the oak tree jutting just above the window.

"Matt, come here!" Amy cried excitedly.

"What's all the noise about?" Matt asked as he walked the few steps from his bedroom into Amy's.

"There's a bird nest just above the window! I can see four blue eggs in it. What kind of birds do you think they belong to?"

"I think they are robin's eggs. I remember reading that they were always blue. I bet that's what it is," Matt said, proud that he was able to answer Amy's question. "Let's get a book and check for sure."

Amy and her kitten, Rover, were soon following Matt down the stairs to the den where the family books held a proud place.

"Let me see. It would be in this field guide. This is the book that Mom always takes with her when we go camping," Matt said to Amy, frowning when he saw that her attention was now completely on the playful kitten at her feet. "Amy, do you want to read about the robin or not?"

"Of course, I do, Silly," Amy replied. "What does it say?"

"Well, it says that robins are found in the eastern and southern parts of the United States and in parts of Canada. The head and tail are black in males and dull gray in females. The baby birds are spotted. They live in towns and gardens and open woodlands and even in agricultural land. Matt glanced up to find that Amy was listening intently. Rover's attention was not held nearly as well, though.

"Here's the part that we need to know," Matt went on. "The nests are usually made out of mud reinforced with grass and twigs and are lined with softer grasses. They usually put the nest on a ledge or windowsill or in a tree. It's got to be a robin's nest,



Illustration by Diane Grant

Amy. It says here that they do lay baby blue eggs. Won't it be fun to watch the birds hatch?" Matt said to his little sister.

Amy agreed enthusiastically and soon the two were making plans to keep a journal of all the things they were able to see. Matt, an amateur photographer, resolved to take pictures of each stage of the tiny birds' development.

Three days later when Matt, Amy and Rover checked the nest, they found that the birds had hatched. They excitedly noted that the nest held three blind, fuzzy, helpless and, undoubtedly, hungry chicks. As the three sat quietly and watched, the baby birds opened their beaks and waited for their returning mother to drop food into the bright red mouths.

the nest on a ledge or windowsill or The days passed and as Matt and in a tree. It's got to be a robin's nest, Amy watched, the baby robins slow-

ly grew too big for the small, mud-built nest. About 20 days after the birds had hatched and on one of the last days that they observed the birds, Amy noticed that there hardly seemed enough room in the nest for the tiny birds to breathe.

"You know," said Matt. "It says in the bird book that when robins are this age they can eat enough in one day to equal their own weight."

"Really?" Amy replied excitedly. "That would be like me eating 40 pounds of cookies in one day!"

"Amy!" Matt shouted several days later. Amy reached the room in just enough time to watch the birds take their first flying lesson. Soon the babies were very sure of themselves and were quickly gone. Rover, who had watched the spectacle with increasingly interested eyes, was disappointed. Amy agreed wistfully with her kitten.

ME AND BELLET TO ME

...A PERSON OUGHT TO HAVE ONE

For you hikers, especially if you are interested in the Appalachian Trail, in May 1978, with Atlanta, Georgia as the spot where you want to begin your jaunt, there might just be some free sleeping bag space plus the use of a bath and kitchen. Now this is in a private home so prior arrangement is an absolute must. Get your details together including your name, home address, trip date and the names and numbers of the others in your party and send them to J.S. Fair, 307 Adair Street, Unit D-5, Decatur, Georgia 30030.

Along those same lines and what with summer and vacation-time near at hand, it is down right natural to have one's work-a-day world invaded (pleasantly) with visions of travel whether it is planned or just plain "wished for." In that vein, there are firms which deal in a product which is an integral part of these plans...MAPS. Without going into detail listing the well known maps sources, it may just suit your fancy to learn about some that have escaped your attention; for example, The Forearmed Traveler located at 227 Scenic Avenue, Piedmont, California 93611. This outfit has the capability of furnishing maps of 24 cities in Europe and 30 states in Mexico. Write them for a free list.

If your specific interest is globe trotting, then you might find it profitable to contact Travel Centers of The World (TCW). These folks have a free brochure available which itemizes 125 of their most popular maps.



Ask for it from TCW, Box 1673, Hollywood, California.

The National Wildlife Federation publishes an absolutely delightful brochure called Official Birds, Mammals, Trees, Flowers, Insects and Fish of the States. It is one of the handiest reference folders that these eyes have seen in more than a little while and it is free in single copies to requestors. An example of the information contained would be California's listing of their official bird (California quail), mammal (grizzly bear), tree (California redwood), flower (California poppy), insect (dogface butterfly) and fish (golden trout). The address is National Wildlife Federation, 1412 16th Street, N.W., Washington, D.C. 20036.

....FOR YOUR BOOK SHELF

and magnificence into a book which Illinois 61801.

he appropriately entitled *The Blue* Ridge. In it, you will find seventy-five breath-taking and rare color shots supplemented with kind, gentle and wise words about the Ridge. The book is a bit expensive but not really, considering the sheer quality of this 111 page hard back. Priced at \$15.95, The Blue Ridge is available from The Viking Press, Department ATE-AF, 625 Madison Avenue, New York, New York, 10022, or at your book store.

The Soil Conservation Society of America is headquartered at 7515 N.E. Ankeny Road, Ankeny, Iowa 50021, and recently they have made available, from that location, an educational cartoon booklet which is meant to acquaint interested folks in local conservation districts. This booklet is the 11th in a series from the Society and sells for \$.35. The complete set costs \$2.00 and, for you teachers, guides are \$.25.

....AND THEN

If any of you good folks have a wind-driven generator, i.e. a wind machine which is capable of making the stuff that powers light bulbs and Admittedly, I am a newcomer to TVs and such, someone is interested the Commonwealth and yet it was in you. Bob Ferber or Diane nearly twenty years ago that I had O'Rourke out at Survey Research the good fortune to come to this fair Laboratory at the University of land. All during that time, I have Illinois would like to get in touch been fascinated, moth-to-flame like with you. If any of you do have with the grandeur and grace of the equipment of this type or know of Blue Ridge. Well sir, a fellow by the anyone that is using it, please let name of William A. Blake has done a these people in on it. Their address is tip top job of putting all that beauty 414 David Kidley Hall, Urbana,

CRUSIN'!

Continued from page 12

birds which frequent the Atlantic Flyway. In spring the neighborhood changes as tern, gulls, skimmers, oyster catchers, herons, and egrets migrate in and nest on the island dunes and in the thick spartina marshes.

Fishing along the waterway begins in early April when flounder come in to the shallow bays and creeks. Grey trout are available beginning in May, and later in the summer croaker, spot, and small bluefish are abundant. Channel bass and black drum provide plenty of sport for surf fishermen on the barrier islands.

My favorite times for traveling the Inside Passage are spring and fall. Although the passage is never actually heavily traveled, weekend crowds can be encountered between Memorial Day and Labor Day and an excess of boat traffic erases the feeling of remoteness that is an important part of the experience of exploring these wild marshlands. For bird watchers, late April and early May provide prime time viewing. Many of the winter birds - the ducks, geese, and brant - are still around, and the summer birds have already moved in. Also, the cooler weather discourages most of the insects that can make life miserable during the summer. On a muggy summer day when no breeze is stirring the wetlands produce an array of mosquitos, gnats, and flys that can drive you bananas. So don't forget the insect repellent.

And another item for your must-have list: a good oar or sturdy pushing pole. Unless your name is Henry the Navigator, you'll likely be hearing the familiar bump, thud, whop, whop, whop of your dauntless craft running aground. As a wise waterman friend once told me, "Son, there's a lot of water out there, but it's stretched mighty thin."





Bird of the Month

THE BROWN THRASHER

BY JOHN W TAYLOR

The thrashers are thrush-like relatives of the mockingbird. There are four distinct groups of them, centered in the arid southwestern United States, these groups separated chiefly by differences in plumage and bill shape.

Our brown thrasher is the only eastern species, breeding from the Atlantic to the base of the Rocky Mountains. It nests north to southern Canada and south to the Gulf states and Florida, the bulk of them wintering in the southern portion of this range.

In Virginia, breeding birds make their appearance in early April. Usually it is their song that first alerts us: a series of couplets, delivered with vigor and virtuosity. The short, sparkling phrases are given rapidly, each note usually being twice repeated. As a technical performance, the song has been compared with that of the famed nightingale of Europe.

Some authors make considerable ado over the thrasher's powers of mimicry, rating them with those of the mockingbird. It seems, however, that this skill has been developed only by certain individual thrashers. Generally, thrashers sing songs pretty much of their own arrangement.

Unlike that of the mockingbird, the thrasher's season of song is a limited one. While the mocker may sing the summer through, and even into the fall and winter in warmer climates, the thrasher's brief period of song is hardly a month in duration. Once courtship has ended and the cares of raising a family assumed, the thrasher falls silent.

Except, that is, for its harsh scolding note, sounding like a loud, inhaled kiss, which anyone happening near the nest is bound to hear. The thrasher is a fiery defend-

er of its territorial rights. Once it casts its glaring yellow eye on an interloper, the intruder is indeed in for a thrashing.

Some think such aggressive behavior gives the bird its name; others contend it derives from the way it thrashes its long tail about. Etymologists think, though, that the word is a corruption, or dialectic form, of "thrush."

In fact, many people actually call the thrasher a thrush, noting the superficial similarities to that family. There is the same brownish back and the breast spotting. But the tail and bill of the thrasher are much longer and the bird is larger overall than any of the thrushes, including the robin.

Following the brief period of song, the thrasher sets up housekeeping. The site chosen for the nest is the thorniest, most briary, most thickly tangled mass of shrubbery in the neighborhood. (Nobody has ever looked at a thrasher's egg without getting pretty well scratched up.)

The nest is low, seldom above eye-level, and is structured of bulky twigs, with a lining of finer material. The three to six eggs are white, often with a greenish cast, delicately spotted with brown. They hatch in about two weeks, and leave the nest in another ten or twelve days.

While still fledglings, the young are fed a wide variety of food, depending on what is available. Animal food, mostly insects, forms the bulk of their diet, as it does with the adult birds. Some wild fruits, especially elderberry and pokeberry, are eaten, but little is taken from cultivated fruit trees.

Two broods per year are customary, the parent birds beginning almost immediately to build again, once the first batch is fledged. By mid-July, the second brood has left the nest in most cases, but Dr. Murray found young in a nest at Lexington on August 3.

By mid-September, Virginia thrashers begin to drift south and east. Most of these local birds probably winter on the coastal plains of Georgia and the Carolinas, as is indicated by banding returns. Some of them winter in the southeastern corner of the state, and on the lower Delmarva peninsula. These are most likely birds that have summered farther north, perhaps in New England.

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BARN SWALLOW

One spring, when I was a boy on a farm on the Eastern Shore, a pair of barn swallows built a nest near the ceiling of our stable. My brother and I carefully removed the hay from directly over the nest in the hay loft. A crack in the loft floor allowed us to watch the birds from a distance of about 5 inches as they labored through the incubation and raising of the fledglings. Never before or since have I had a better opportunity to watch an uninhibited wild creature from such a close vantage point.

You are most likely to see the barn swallow darting about the sky in typical swallow fashion, feeding on flying insects..or perching on power lines..especially as they prepare to migrate to South America for the winter..or flopping about on their weak feet as they gather mud for building their nest.

Know the barn swallow by his forked tail.